

CLAIMS

I claim:

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5 1. A receiver adapted to receive data contained in a transmitted broadcast signal comprising:
 a tuner for extracting data from a broadcast signal;
 a memory coupled to the tuner for storing the extracted data as a database;
 a user interface for providing a set of menus describing the database, and for accepting selections from the set of menus;
 a controller coupled to the database for selecting data from the database in response to the accepted selections and providing the selected data in a digital form; and
10 15 a speech producing sub-system for converting the selected data from the digital form to an analog signal representing an original audio signal.

20 2. The device of Claim 1, wherein the tuner extracts data from an FM broadcast radio station carrier.

20 3. The device of Claim 1, wherein the tuner extracts data from a television broadcast station carrier.

25 4. The device of Claim 3, wherein the tuner extracts data from a vertical blanking interval of the broadcast television station carrier.

25 5. The device of Claim 3, wherein the tuner extracts data from a Separate Audio Programming channel of the television station carrier.

6. The device of Claim 1, wherein the memory stores the entire database.

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7. The device of Claim 1, wherein the memory comprises a combination of a volatile RAM memory and a non-volatile memory.

8. The device of Claim 7, wherein the non-volatile memory is selected from the group consisting of a audio tape, a magneto-optical mini-disk, a magnetic disk or an optical disk,

9. The device of Claim 1, wherein the received data is audio data that has been converted from analog form to digital form.

10. The device of Claim 9, wherein the received digitized audio data is digitized and has been compressed.

11. The device of claim 9, wherein the digitized audio data has been encrypted.

15 12. The device of Claim 1, wherein the received data is alphanumeric data that has been converted from analog form to digital form.

13. The device of claim 12, wherein the alphanumeric data is converted to voice data by a speech synthesizer.

20 14. The device of Claim 1, wherein the extracted data is in digital form, has been encrypted and compressed, and further comprising a decryptor for providing conditional access and decrypting the extracted data.

15. The device of Claim 14 wherein said system has a 25 decompression algorithm to decompress data that has been compressed at a transmitter.

16. The device of Claim 14 wherein the decryptor is enabled by a key received by the tuner.

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15. The device of Claim 14, wherein the decryptor is enabled by a key device operatively connected to the decryptor.

5 17. The device of Claim 1, wherein the user interface is voice activated.

18. The device of Claim 1, wherein the user interface includes:

10 a manual input device adapted to be mountable on an automobile steering wheel; and

a link from the manual input device to the controller.

19. The device of Claim 1, wherein the user interface includes a control for determining a speed at which the speech 15 output device outputs the analog signal.

20. The device of Claim 1, wherein the tuner includes means for channel skip tuning to a particular transmitter.

21. The device of Claim 1, further comprising:

20 an amplifier connected to the speech producing device for amplifying the analog signal; and means for converting the amplified signal to sound.

22. The device of Claim 1, further comprising means for connecting the receiving system to an automobile radio set.

23. The device of Claim 1, further comprising means for 25 designating by the broadcaster a hierarchy for the database.

24. The device of claim 1, wherein a power saving technique comprises storing said digital data received in a RAM memory up to the capacity of the RAM before transferring said digital data to a storage means from the group consisting of 5 disk medium or tape medium.

25. The device of claim 24, wherein said tape medium is a digital audio tape.

26. The device of claim 24, wherein said disk medium is a magnetic disk.

10 27. The device of claim 24, wherein said disk medium is a magnetic-optical disk.

28. The device of claim 24, wherein said disk medium is an optical disk.

15 29. The device of claim 1, wherein a speed of transmission of said data can be varied to most efficiently use the available bandwidth.

30. A method for information dissemination using various modes of transmission for transmitting alphanumeric or audio data comprising the steps of:

20 converting said audio data to digital audio data;
 converting said alphanumeric data to digital alphanumeric data;
 establishing a data base of digitized data with menus for selection of particular segments of said data base;
25 compressing said digital audio data;
 encrypting said compressed digital data;
 encrypting said digitized alphanumeric data;

selecting between digital alphanumeric data and compressed audio data;

transmitting said selected data;

extracting the data from the transmitted signal;

5 providing a memory;

storing the extracted data in the memory as a database;

providing a set of menus describing the database;

selecting items from the set of menus;

10 providing portions of the stored data in response to the selected items from said menus;

decrypting said encrypted data;

selecting digitized alphanumeric data or compressed data;

15 decompressing said compressed digital data;

converting the provided portions from the digital form to an first analog signal representing audio signals;

converting alphanumeric digitized data to second analog signal representing spoken words; and

20 outputting said first and second analog signals for human hearing.

31. A receiver comprising:

means for extracting data from a transmitted signal;

25 means for storing the extracted data as a database;

means for providing a set of menus describing the database, and for accepting selections from the set of menus;

means for selecting data from the database in response to the accepted selections;

30 means for providing the selected data in encrypted, compressed and digital form;

means for decrypting the selected data;

means for decompressing the decrypted data;

means for converting the digital data to analog audio data; and

means for outputting audio originally transmitted for human hearing.

5 32. A system for information dissemination using various modes of transmission to transmit audio data comprising:

 a data producing sub-system for converting analog audio information to digital data and a database with menus;

10 a data compressor for compressing the encrypted audio data; and

 an encryptor for encrypting the digital audio data;

 a means for inserting the compressed encrypted digital audio data into a transmission channel;

15 a tuner means for receiving the transmitted compressed encrypted digital audio data;

 a memory means for storing the selected data in the database;

20 a means for providing a set of menus to a user describing the database, and a means for updating the data in the database;

 a controller means for selecting data from the database in response to the accepted selections and providing the selected data in the encrypted compressed digital form; and

25 a decrypting means for decrypting the encrypted compressed digital audio data;

 a decompressing means for decompressing the compressed digital audio data; and

30 a means for converting the digital audio data to analog audio data representing the audio originally transmitted.

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